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(54) Title: ELECTRODE ACTIVE MATERIAL POWDER WITH SIZE DEPENDENT COMPOSITION AND METHOD TO PREPARE THE SAME



(57) Abstract: The present invention relates to a powdery electrode active material of lithium transition metal oxide Li_aMbO_2 , wherein $0.9 < a < 1.1$, $0.9 < b < 1.1$ and M is dominantly transition metal chosen from Mn, Co and Nickel, having particles with a distribution of sizes, where the composition M varies with the size of the particles, and a preparation method thereof. The present invention also relates to an electrochemical cell, particularly rechargeable lithium battery, using the powdery electrode active material.

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